

'pigmy' industry. The Smithfield culture consists of an older and a newer industry, the latter apparently persisting into recent historic times. Finally, there are the kitchen-midden industries; these belong on the whole to the Wilton culture, though there is evidence that other peoples besides the Bushman took to a strand-looping life.

The most original part of this excellent book deals with rock-paintings, in which Mr. Burkitt has been able to establish a sequence provided by superpositions and marked by the use of distinctive pigments and notable differences in style. In Southern Rhodesia he distinguishes five different age periods, which may perhaps be resolved into three. In the Orange Free State Province several series of art styles were determined. The types of paintings of this Central Art Group are much more varied than those of Southern Rhodesia, and whenever industries have been found associated with these paintings, they can be referred to the Upper Smithfield culture. The paintings of the Southern Art Group are quite dissimilar and far inferior to those of the Central Group; all are executed in red pigment and are associated with the Wilton, that is, the Bushman, culture.

A visit was paid to Zimbabwe, and Mr. Burkitt noticed Kaffir hearths extending below one of the walls of the acropolis; he thinks it reasonable to suggest some date between A.D. 1000 and A.D. 1200 for the construction and use of these monuments.

Mr. Burkitt has written a very useful and attractive book. He was accompanied by his wife in all his expeditions, some of which were distinctly arduous. The book is well illustrated with photographs, and a large number of very good drawings of implements by Mrs. Burkitt, who also made a large series of tracings of the rock paintings. The coloured plate drawn by her explains the colour terminology and sequence.

A. C. HADDON.

### Our Bookshelf.

*Physics for Medical Students.* By Prof. Sidney Russ. Pp. vii + 230. (Edinburgh: E. and S. Livingstone, 1928.) 10s. 6d. net.

ONE of the important problems that come before the teacher of physics is that of the instruction of medical students in this subject. The problem is a difficult one, because the student often shows a distaste for the subject, and it is obvious that his aim is to pass an examination which will open a door to freedom from physics. There are many text-books for medical students, but most of them are written merely for examination purposes and are not satisfactory even in this respect. Few

are designed to interest the future medical practitioner in principles of wide application in medicine, surgery, and gynaecology. Dr. Russ's book is valuable, in that it is worthy of its title and rouses the interest by pointing continually to the application of physical principles in medicine and to their use in diagnosis and treatment.

The book is short and covers the essential points of importance in examinations, but it is not written with the sole object of pandering to a syllabus; it suggests, indeed, the type of syllabus appropriate to the medical student, and the field from which examination questions might profitably be chosen.

The author has had considerable experience in the teaching of medical students, and has also an intimate knowledge of the details of the application of physics to medicine. This is well exemplified in the chapter on X-rays and radioactivity, where we find useful facts stated and duly stressed, as, for example, the mention of radon and its place in the series of radioactive elements.

It is easy to understand why the author deals only briefly with the subject of sound, but his object would have been helped by a short account of the mechanism of hearing.

The diagrams are good, simple, and easy to follow. A mistake has been overlooked in Fig. 73, where the division of the rays has been shown to take place within the prism and not on emergence. The same point is illustrated correctly in Fig. 77.

*Der fossile Mensch: Grundzüge einer Paläanthropologie.* Von Prof. Dr. E. Werth. Teil 3 (Schluss der Werke). Pp. xi + 577-898. (Berlin: Gebrüder Borntraeger, 1928.) 30 gold marks.

In this concluding part of his treatise Prof. Werth deals with man himself, and questions of climate, industries, and associated fauna. It is generously and clearly illustrated.

The ground covered in the present volume has been so repeatedly surveyed by hosts of writers during the last decade, that it is unnecessary to say more of the parts of the book dealing with matters concerning which there is general agreement beyond the statement that the work is done well.

Turning to the contentious issues, the author still believes that the Piltdown jaw is an ape's, and thinks the cranium is not sufficiently different from that of modern man to warrant the creation of a new genus for its reception. His idea of the relationships and phylogeny of the Primate groups is distinctly novel. He suggests that *Propliopithecus* and *Parapithecus* were derived from the Lemuroidea. From the former emerged the Miocene *Dryopithecus*, whose Pliocene descendant *Palaeopithecus* was the ancestor of the orang, the chimpanzee, and the gorilla. The Oligocene *Parapithecus*, on the other hand, was the ancestor of two phyla, one leading (through *Pliopithecus*) to the gibbons, the other (through *Pliohylobates*) to the human family.

This is a very strange variation of the many